

REMARKS

The Office Action mailed July 2, 2008 has been carefully reviewed and the foregoing amendment and following remarks have been made in consequence thereof.

Claims 18-23 are now pending in this application. Claims 1-17 have previously been cancelled. Claims 18-23 stand rejected.

The rejection of Claims 20-23 under 35 U.S.C. § 112, first paragraph is respectfully traversed. Claims 20-23 have been amended. As such, Applicants respectfully submit that Claims 20-23 comply with the written description requirement and satisfy Section 112, first paragraph. Accordingly, Applicants respectfully request that the rejection of Claims 20-23 under Section 112 be withdrawn.

The rejection of Claims 20-23 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,059,123 (Bartos) is respectfully traversed.

Bartos describes a turbine engine cleaning unit (10). Unit (10) includes a water reservoir (18), a preservative reservoir (20), a cleaner reservoir (22), and a solvent reservoir (24). A ring assembly (96) is configured to inject fluid into a gas turbine engine. Ring assembly (96) includes two arcuate tube sections (222, 224), each coupled to a t-section (226). T-section (226) is coupled to a high pressure hose (94), which is coupled in flow communication with unit (10). A plurality of holes (232) is defined within the front face of each tube section (222, 224). Plurality of holes (232) facilitates discharging of liquid in a direction that is substantially perpendicular to the plane of ring assembly (96). Notably, Bartos does not describe nor suggest a washing system that is selectively operable to inject a liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine.

Claim 20 recites a washing system for a gas turbine engine, wherein the washing system comprises “a pump . . . a ring manifold . . . said ring manifold comprising a plurality of circumferentially-spaced spray nozzles . . . selectively operable to inject a first liquid . . . said plurality of spray nozzles are selectively operable to inject a second liquid into the gas turbine engine after the first liquid is injected to facilitate reducing a rate of formation of

particulate matter within the gas turbine engine by suppressing electrostatic attraction within the gas turbine engine.”

Bartos does not describe nor suggest a washing system for a gas turbine engine as is recited in Claim 20. Specifically, Bartos does not describe nor suggest a plurality of spray nozzles that are selectively operable to inject a first liquid and that are then selectively operable to inject a second liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine. Rather, Bartos describes a ring assembly that includes a multiplicity of holes that enable the injection of water, preservative, cleaner, and solvent.

Accordingly, for at least the reasons set forth above, Claim 20 is submitted to be patentable over Bartos.

Claims 21-23 depend from independent Claim 20. When the recitations of Claims 21-23 are considered in combination with the recitations of Claim 20, Applicants respectfully submit that dependent Claims 21-23 likewise are patentable over Bartos.

For at least the reasons set forth above, Applicants respectfully request that the rejection of Claims 20-23 under Section 102 be withdrawn.

The rejection of Claims 18-20 under 35 U.S.C. § 102(b) as being anticipated by Bartos in view of U.S. Patent 5,944,483 (Beck) or U.S. Patent 5,273,395 (McDermott) is respectfully traversed.

Bartos is described above.

Beck describes wet cleaning a nozzle ring (7) of a turbine casing (1). Turbine casing (1) includes a gas-inlet casing (2) and a gas-outlet casing (3). Gas-inlet casing (2) includes ten radial recesses (10) uniformly distributed over its periphery, each radial recess (10) housing an injection nozzle (11). A water line (19) is coupled to a water reservoir (not shown) and an air line (20) is coupled to a compressor (not shown). Water (37) is injected through injection nozzle (11) into a flow duct (8). Notably, Beck does not describe nor suggest a washing system that is selectively operable to inject a liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine.

Claim 18 recites a gas turbine engine comprising “a compressor . . . a pump . . . a ring manifold coupled in flow communication . . . said manifold comprising a plurality of circumferentially-spaced spray nozzles that are selectively operable to discharge a first liquid . . . selectively operable to discharge a second liquid after the first liquid is discharged to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine . . . and that are oriented to discharge the first liquid and the second liquid....”

Applicants respectfully submit that no combination of Bartos and Beck describes nor suggests a gas turbine engine as is recited in Claim 18. Specifically, no combination of Bartos and Beck describes nor suggests a gas turbine engine that includes a plurality of spray nozzles that are selectively operable to inject a first liquid and subsequently are selectively operable to inject a second liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine. Rather, Bartos describes a multiplicity of holes that discharges water, preservative, cleaner, and solvent, and Beck describes an injection nozzle that merely discharges water.

Accordingly, for at least the reasons set forth above, Claim 18 is submitted as patentable over Bartos in view of Beck.

Claim 19 depends from independent Claim 18. When the recitations of Claim 19 are considered in combination with the recitations of Claim 18, Applicants respectfully submit that dependent Claim 19 likewise is patentable over Bartos in view of Beck.

Claim 20 is recited above.

Applicants respectfully submit that no combination of Bartos and Beck describes nor suggests a washing system for a gas turbine engine as is recited in Claim 20. Specifically, no combination of Bartos and Beck describes nor suggests a plurality of spray nozzles that are selectively operable to inject a first liquid and subsequently are selectively operable to inject a second liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction. Rather, Bartos describes a multiplicity of holes that discharges water, preservative, cleaner, and solvent, and Beck describes an injection nozzle that discharges water.

Accordingly, for at least the reasons set forth above, Claim 20 is submitted as patentable over Bartos in view of Beck.

Bartos is described above.

McDermott describes cleaning a gas turbine engine (not labeled). Gas turbine engine includes a cylindrical hollow portion (2) and a curved air-flow directional portion (4). A plurality of nozzles (6, 8, 10, 12, 14, 16, 18) are circumferentially spaced and coupled to a manifold ring (20). Notably, McDermott does not describe nor suggest a washing system that is selectively operable to inject a liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine.

Claims 18 is recited above.

Applicants respectfully submit that no combination of Bartos and McDermott describes nor suggests a gas turbine engine as is recited in Claim 18. Specifically, no combination of Bartos and McDermott describes nor suggests a plurality of spray nozzles that are selectively operable to inject a first liquid and subsequently are selectively operable to inject a second liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine. Rather, Bartos describes a ring assembly that includes a multiplicity of holes that discharge water, preservative, cleaner, and solvent, and McDermott describes a plurality of nozzles that discharge a cleaning solvent.

Accordingly, for at least the reasons set forth above, Claim 18 is submitted as patentable over Bartos in view of McDermott.

Claim 19 depends from independent Claim 18. When the recitations of Claim 19 are considered in combination with the recitations of Claim 18, Applicants respectfully submit that dependent Claim 19 likewise is patentable over Bartos in view of McDermott.

Claim 20 is recited above.

Applicants respectfully submit that no combination of Bartos and McDermott describes nor suggests a washing system for a gas turbine engine as is recited in Claim 20. Specifically, no combination of Bartos and McDermott describes nor suggests a plurality of spray nozzles that are selectively operable to inject a first liquid and subsequently are

selectively operable to inject a second liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction within the gas turbine engine. Rather, Bartos describes a ring assembly that includes a multiplicity of holes that discharge water, preservative, cleaner, and solvent, and McDermott describes a plurality of nozzles that discharge a cleaning solvent.

Accordingly, for at least the reasons set forth above, Claim 20 is submitted as patentable over Bartos in view of McDermott.

For at least the reasons set forth above, Applicants respectfully request that the rejection of Claims 18-20 under Section 102 be withdrawn.

The rejection of Claim 18 under 35 U.S.C. § 102(b) as being anticipated by Beck is respectfully traversed.

Beck is described above.

Claim 18 is recited above.

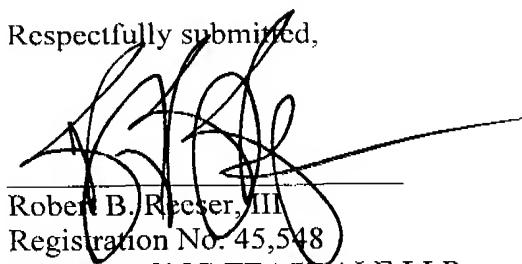
Applicants respectfully submit that Beck neither describes nor suggests a gas turbine engine as is recited in Claim 18. Specifically, Beck neither describes nor suggests a gas turbine engine that includes a plurality of spray nozzles that are selectively operable to inject a first liquid and subsequently are selectively operable to inject a second liquid to facilitate reducing a rate of formation of particulate matter by suppressing electrostatic attraction. Rather, Beck describes an injection nozzle that discharges water.

Accordingly, for at least the reasons set forth above, Claim 18 is submitted as patentable over Beck.

For at least the reasons set forth above, Applicants respectfully request that the rejection of Claim 18 under Section 102 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,


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